

README File

Last Updated: 09/14/2021

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Project: **VistA Kernel Infrastructure Team**

Software: **RPC Broker Development Kit (BDK)**

Current Version: **1.1**

Original Software Release Date: **October 1997**

Department of Veterans Affairs (VA)

Office of Information and Technology (OIT)

Enterprise Program Management Office (EPMO)
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This file contains any last-minute changes, new instructions (not found in the documentation), and additional information to supplement the manuals.

ReadMe file for patch XWB*1.1*73 installation. There are no VistA M Server-side installation components for this patch.

NOTE: This patch supports the following Delphi versions: XE8, 10.0, 10.1, 10.2, 10.3, and 10.4.

These components are only intended for use with the Delphi for Microsoft Win32 version, and not Win64 or .NET.

NOTE: If using FileMan Delphi Components (FMDC) and Kernel Delphi Components (KDC), the Broker Development Kit (BDK) needs to be installed first, then VA FileMan, and then Kernel.

This patch is provided as a zip file. To install it in the normal location, move to the **C:\Program Files (X86)\VistA** directory. If you are a developer, you can unzip the file in one location as a saved baseline, and make a copy in the directory where you are doing your development. Any updates or changes you make as part of your development should be passed to the VistA Kernel Infrastructure team for review as a possible change to future released versions of the BDK.

1. Back up the existing BDK32 directory by renaming it (e.g., BDK32_P72) in order to maintain the existing files.
2. Unzip the provided zip file, making sure the "use folders" box is

checked, INTO the Vista directory - this will create the **BDK32** directory and subdirectories under the Vista directory. These files and subdirectories can be copied into a **BDK32_P73** directory to maintain the unmodified files for reference.

3. After installing the zip file, there should be a **BDK32** directory with the following subdirectories:

- * **BAPI32dll** - **BAPI32.DLL** and sample header files.
- * **BAPI32_73** - Source code for **BAPI32_73.DLL**.
- * **Samples** - Contains sample programs compiled with Delphi XE8:
 - **BrokerEx**: Contains **BrokerExample.exe** (includes CCOW and SSH code) demonstrating Delphi GUI for Vista using 2-factor authentication (2FA).
 - **BSE**: Contains **BseSample1.exe** for Broker Security Enhancement (BSE).
- * **Source** - Contains source code and forms for the components.

4. Open Delphi.
5. Enter the library directories making sure that the directories are entered into the Library fields.
6. Open the menu **Tools | Options**.
7. Select the **Library** tab [or open the menu **Tools | Options**, expand the **Environment Options**, then the **Delphi Options**, and select **Library**.]
8. Selected platform should be 32-bit Windows.
9. Press the ellipsis (...) at the right of the combo box for Library Path.
10. Either enter the directories in the edit box under the list box or press the Folder at the right of the edit box and navigate to the directories. For the default location, this is:

C:\Program Files (x86)\Vista\BDK32\Source

11. Press **Add**.

12. After entering the directory, press **OK** to close the dialogue.

If **RPCBroker** components already exist in the Delphi version:

1. Select the menu **Component | Install Packages**.

2. Select the **RPCBroker** components (one at time).

3. Press **Remove** to remove them.

4. When finished, press the **OK** button.

To install the components into Delphi, it is best to compile and build them in your version of the Delphi IDE, so that all of the necessary files are placed in the proper default directories during installation. The location of these default directories can vary depending on the version of operating system you are using. The **DesignTime** package bundles the **RunTime** package into components that are used when building applications, so the **RunTime** package *must* be compiled before the **DesignTime** package is compiled and installed.

For your convenience, there are **XWB_R*** (**RunTime**) and **XWB_D*** (**DesignTime**) projects set up for specific versions of Delphi, which may help resolve some access violation errors for run time libraries in some versions. For example:

* For Delphi 10 (Seattle) you would use the **XWB_R10.dproj** and the **XWB_D10.dproj** files.

* For Delphi XE8 you would use **XWB_RXE8.dproj** and the **XWB_DXE8.dproj** files.

To install:

1. Open Delphi and select the menu **File | Close All** files, select **File | Open**, and then select the **XWB_R*.dproj** or the **XWB_R*.dproj** file from the **BDK32\Source** directory.

2. For the **R** or **RunTime** files, right-click on the **XWB_R*.bpl** file

in the "Project Manager" frame, and then click **Compile**. Select the menu **File | Close All** (and respond **yes** if asked to save changes). [The **RunTime** files should always be compiled first, since the **DesignTime** files are dependent upon them].

3. Select **File | Open** to select the DesignTime **XWB_D*.dpk** or the **XWB_D*.dproj** file. Right-click on the **XWB_D*.bpl** file in the "Project Manager" frame, and then click **Build**.
4. Right-click on the **XWB_D*.bpl** file in the "Project Manager" frame, and then click **Install** to install or update the version of the components. Select **File | Close All** files (and respond **yes** if asked to save changes).
5. The components are now installed and ready to use in your applications.

The contents of file "**IAMBase.inc**," which contains constants (defaults) used for delegated 2-factor authentication (2FA) for Identity and Access Management, has been moved into a new **.pas** file named **IAMConstants.pas**. The contents may be edited if implementation is being tested in a non-production environment with different values.

NOTE: The RPC Broker Development Kit (BDK) uses **wcrypt2.pas** for certificate processing; however, including the **.pas** file in the source tree for the BDK would cause problems with developers using **wcrypt2.pas** in their other projects. The CPRS Team pointed this out, and therefore, **wcrypt2.pas** is being referenced from the PKI source tree, which was released in patch XU*8.0*639. It is imperative that you include the path in the Delphi Library where your installation of the PKI source tree is located. For instance, if you have your PKI source tree located in **C:\Projects\PKI** then you should include **C:\Projects\PKI** in your Delphi Library path; otherwise, the certificate functions will *not* be found and the BDK will *not* compile/install. If you do *not* have patch XU*8.0*639 installed on your development workstation, it may be downloaded from the any of the VA's FTP sites. The address for the servers is: **<REDACTED>.va.gov**, and the patch filename is: **XU_8_0_P639.ZIP**.